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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/626,485

07/23/2003

Yi Tong Tse

CISCP346

1281

22434

7590

10/05/2006

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EXAMINER

DO, ANH HONG

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/626,485	<b>Applicant(s)</b> TSE ET AL.	
	<b>Examiner</b> ANH H. DO	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-22 and 27-30 is/are allowed.
- 6) ☒ Claim(s) 1-11, 23-26 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/28/2005</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 31 recites the limitation "apparatus" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-11 are drawn to a computer implemented process that merely manipulates data or an abstract idea, or merely solves a mathematical problem without a limitation to a practical application in the technological arts.

In order for a claimed invention to accomplish a practical application, it must produce a "useful, concrete and tangible result" *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02 (see MPEP 2106.II.A). A practical application can be achieved

through recitation of “a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan”, or “limited to a practical application within the technological arts” (MPEP 2106 IVB2(b)). Currently, claims 1-11 meet neither of these criteria. In order to for the claimed process to produce a “useful, concrete and tangible’ result, recitation of one or more of the following elements is suggested:

- \* The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106 IVB2(b)(i)).
- \* A recitation of a physical transformation outside the computer, for example in the form of pre or post computer processing activity (MPEP 2106 IVB2(b)(i)).
- \* A direct recitation of a practical application in the technological arts (MPEP 2106 IVB2(b)(ii)).

5. Claims 23-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 23-26 are drawn to functional descriptive material embodied on a computer readable medium (i.e., “data structures and computer programs which impart functionality when employed as a computer component” at MPEP 2106.IV.B(1)). However, the program/algorithm itself merely manipulates data or an abstract idea, or merely solves a mathematical problem without a limitation to a practical application in the technological arts. MPEP 2106.IV.B2(a) (Statutory Product Claims) states:

“A claim limited to a... manufacture, which has a practical application in the technological arts, is statutory.”

In order for a claimed invention to accomplish a practical application, it must produce a “useful, concrete and tangible result” *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02 (see MPEP 2106.II.A). A practical application can be achieved through recitation of “a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan”, or “limited to a practical application within the technological arts” (MPEP 2106 IVB2(b)). Currently, claims 23-26 meet neither of these criteria. In order to for the claimed process to produce a “useful, concrete and tangible’ result, recitation of one or more of the following elements is suggested:

- \* The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106 IVB2(b)(i)).
- \* A recitation of a physical transformation outside the computer, for example in the form of pre or post computer processing activity (MPEP 2106 IVB2(b)(i)).
- \* A direct recitation of a practical application in the technological arts (MPEP 2106 IVB2(b)(ii)).

#### ***Allowable Subject Matter***

6. Claims 12-22 and 27-30 are allowed.
7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding independent claims 12 and 27, the prior art, taken either singly or in combination, does not teach:

- an output interface configured to/means for transmit/transmitting a plurality of output coefficients ( $F_0$ ) quantized at the output quantization scale, wherein the plurality of output coefficients are determined using a formula minimizing the difference between dequantized input coefficients ( $f_i$ ) and dequantized output coefficients ( $f_0$ ).

Regarding claims 13-22 and 28-30, since these claims depend from claims 12 and 27, respectively, they are also allowable for the same reason.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 1, 2006

A handwritten signature in black ink, appearing to read 'anhongdo', with a long horizontal flourish extending to the right.

**ANH HONG DO**  
**PRIMARY EXAMINER**